

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2003/000589

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04L 1/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04Q, H04B, H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, INSPEC, XPI3E

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003007480 A1 (SEONG-HUN KIM ET AL), 9 January 2003 (09.01.2003), see sections [001]-[0033]  --	1-12,21-48
X	WO 019376 03 (INTERDIGITAL TECHNOLOGY CORPORATION), 6 March 2003 (06.03.2003), see sections [0002]-[0005] and [0022]-[0027]  --	1-12,30-45, 47-48

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

26 January 2004

Date of mailing of the international search report

30 -01- 2004

Name and mailing address of the ISA/

Swedish Patent Office

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	3GPP TS 25.308 v5.3.0 (2002-12) 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; High Speed Downlink Packet Access (HSDPA); Overall description; Stage 2 see the whole document and especially page 18 chapter 7.1.2.1	13-20
A	--	1-12,21-48
A	WO 02065797 A1 (TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)), 22 August 2002 (22.08.2002), page 5, line 6 - page 6, line 11 --	1-12,21-48
A	Haitao Lin et al "TPC performance analysis of CDMA systems with RLP and MAC layer retransmissions" Modeling, Analysis and Simulation of Computer and Telecommunications Systems, 2002. MASCOTS 2002. Proceedings. 10th IEEE International Symposium on Page(s): 313-320 ISSN: 1526-7539 INSPEC Accession Number: 7603849 see abstract, section 2 and 2.1 and figure 1 --	1-12,30-36, 38-45,47-48
A	Chatterjee, M. et al "MAC layer retransmissions in 1XTREME", Personal, Indoor and Mobile Radio Communications, 2002. The 13th IEEE International Symposium on 15-18 Sept. 2002 Page(s): 1452-1456 vol. 3 INSPEC Accession Number: 7678121 see abstract and figure 2 -- -----	1-12,30-36, 38-45,47-48

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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

**see next page**

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

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I) Claims 1-12, 30-45, 47-48 relating to a method, a radio base station, and an user equipment characterised by sending or receiving acknowledgements.

II) Claims 13-20 relating to a signal format for uplink transmission/retransmission.

III) Claims 21-29 and 46 relating to a radio network controller arranged to: receive and buffer a first PDU; segment a first PDU into a second PDU; reassemble second PDU into SDU; transfer SDU.

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

24/12/2003

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US	2003007480	A1	09/01/2003	KR	2002095125 A	20/12/2002
WO	019376	03	06/03/2003	NONE		
WO	02065797	A1	22/08/2002	AU	3961301 A	17/09/2001
				EP	1358770 A	05/11/2003
				SE	0100475 D	00/00/0000